

# 1.2738

(similar to AISI P20 + Ni)  
Conventional melting (EF+LF+VD)

• ANAND MOULD STEELS PVT. LTD. • ANAND MOULD STEELS PVT. LTD. • ANAND MOULD STEELS PVT. LTD.



## GENERAL:

- uniform hardness across the cross-section
- very good polishability
- good machinability
- hardenable and temperable plastic mould steel
- nitridable
- suitable for chrome plating

## APPLICATIONS :

Die steel for plastic moulds with a thickness of about 400 mm plus, if uniform hardness, elevated toughness and polishability is required in the contour as well. Moulds for TV housings and rear walls, copier housings; shock-absorber moulds; moulds for dashboards and large outside body parts; waste bin moulds; pressure casting frames

## CHEMICAL ANALYSIS : %

C	Si	Mn	P	S	Cr	Mo	Ni
0,35-0,45	0,20-0,40	1,30-1,60	≤ 0,035	≤ 0,005	1,80-2,10	0,15-0,25	0,90-1,20

## PHYSICAL PROPERTIES :

Coefficient of thermal expansion	20-100 °C	20-200 °C	20-300 °C	20-400 °C	20-500 °C	20-600 °C	20-700 °C
[10 <sup>-6</sup> m/(m x K)]	11.1	12.9	13.4	13.8	14.2	14.6	14.9
Thermal conductivity	20 °C	350 °C	700 °C				
[W/(m x K)]	35.7	33.2	31.9				

## ULTRASONIC :

ASTM A388 - FBH max. 3 mm (1/8 inch) or  
SEP 1921 – test group 3 – class E , e or acc. to your request

## CLEANLINESS :

ASTM E45- Method A with type A ≤ 1,5,  
B; C and D each ≤ 2 or  
DIN 50602– K4 ≤ 20 or  
acc. to your request

DELIVERY CONDITION	SERVICE HARDNESS	STRUCTURE
Hardened and Tempered	280 – 325 HB or acc. to your request	fine bainitic structure

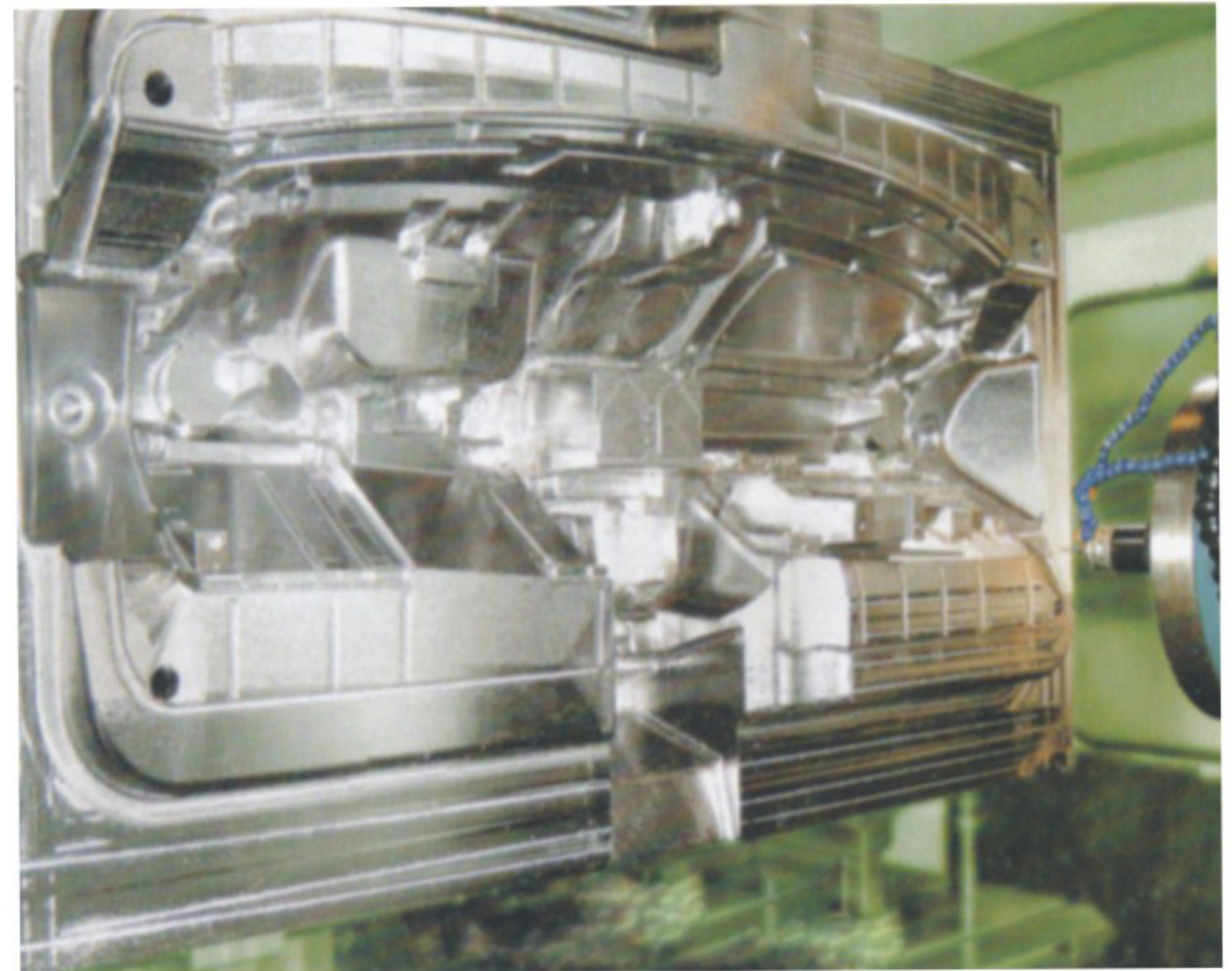
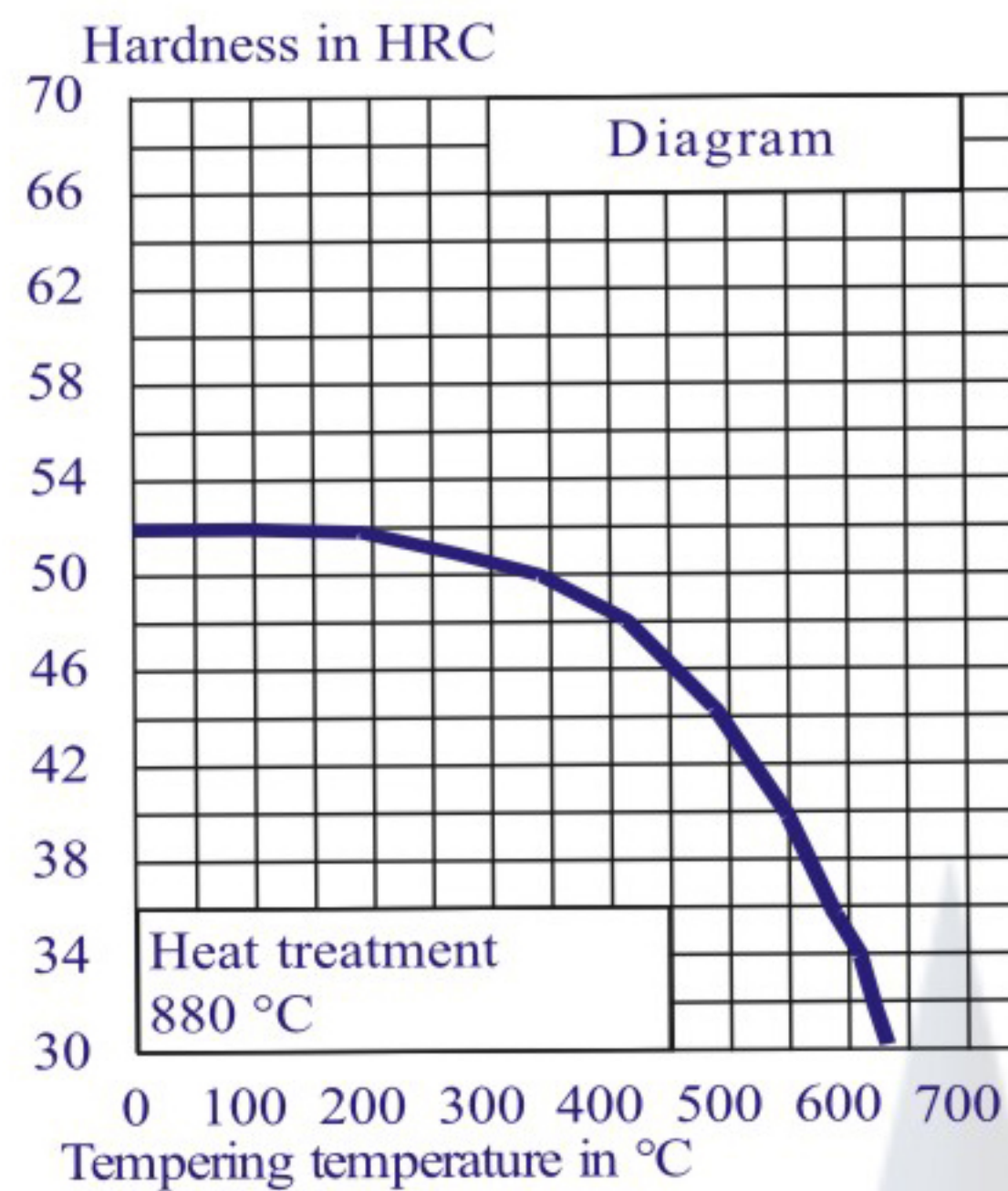
## HEAT TREATMENT :

Hot forming	Soft annealing	Hardening	Tempering
1050 – 850 °C	710 – 740 °C	850 – 880 °C	560 – 680 °C #

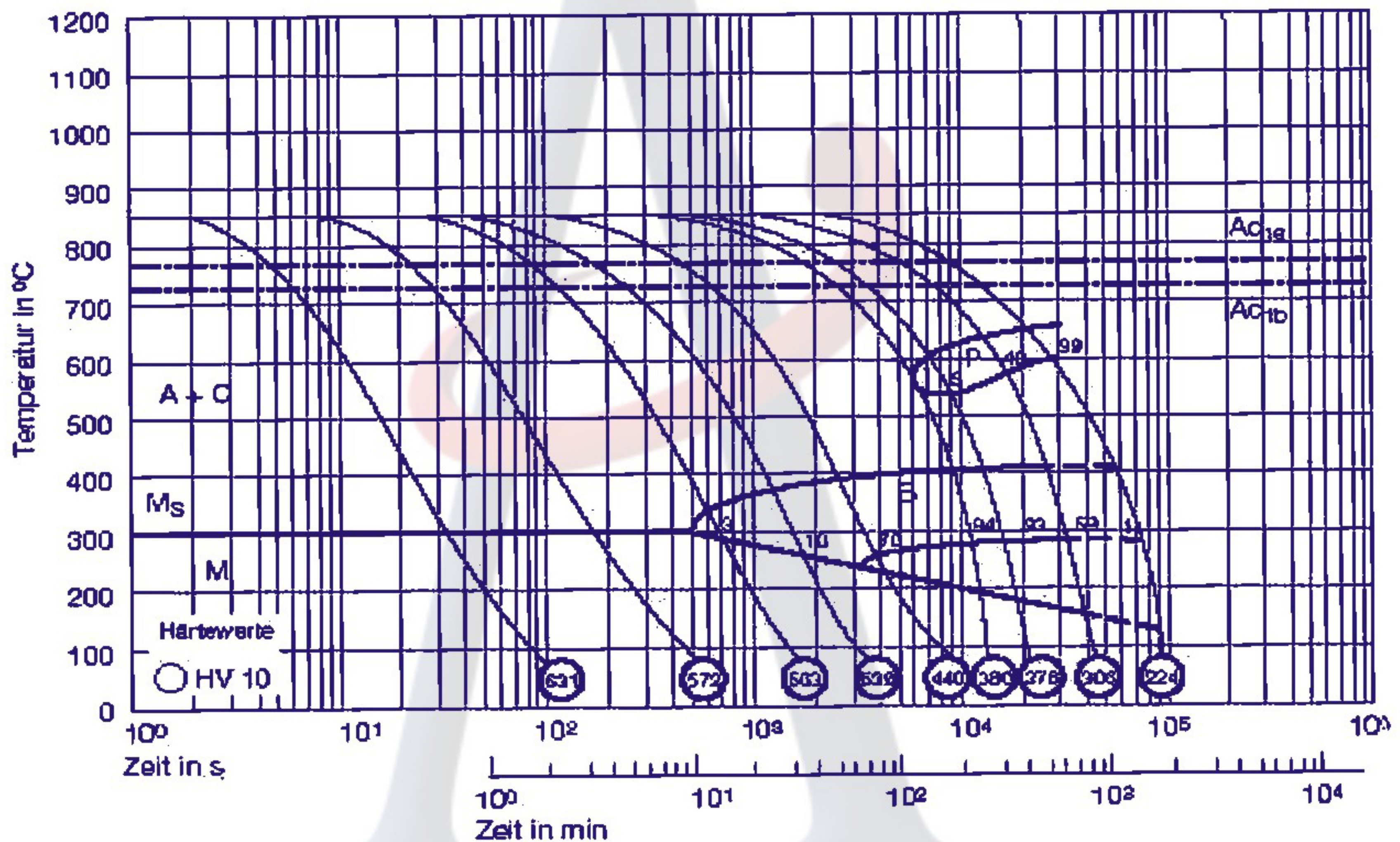


## TEMPERING DIAGRAM : #

values in HRC  
tested on samples  
dia. 25 x 50 mm  
long hardened  
at 880 °C in oil



## CCT GRAPH:



## DELIVERY SIZES :

Rounds – up to 1300 mm

Blocks – up to 1200 mm thickness or acc. to your request

The details and values in this data sheet are typical values, no guarantee promises. Changes of the material, the qualities and/or performance data we reserve for us.



**Schmiedewerke Gröditz**

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**ANAND MOULD STEELS PVT. LTD.**  
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